REMARKS

Claims 1-6, 8-19, 22, 24-32, 38 and 39 are pending in this application. Claims 33-37 have been cancelled, and claims 12, 29, 32, 38 and 39 have been amended, by this Amendment.

The Office Action dated June 13, 2006 objected to the abstract, the specification and the claims because of informalities. The Office Action rejected claims 38 and 39 as being anticipated by Kari; and rejected claims 33-39 as being obvious over Deakin in view of Cobo. Applicants gratefully acknowledge the indication in the Office Action that claims 1-6, 8-19, 22, and 24-32 contain allowable subject matter.

Objections

Applicants have amended the abstract, specification, and claims 12, 29 and 32 to overcome the noted informalities. Specifically, applicants have deleted the phrase 'invention" from the Abstract, and indicated that the parent applications are abandoned on page 1 of the specification. Applicants have also amended claims 12, 29 and 32 to correct the informalities noted in the Office Action.

Claims 33-37

By this Amendment, applicants have cancelled claims 33-37 without prejudice or disclaimer to their further examination in a continuation application. The obviousness rejection of claims 33-37 is thus rendered moot by this Amendment.

Claims 38 and 39

Obviousness Rejection

The grounds for the obviousness rejection of claims 33-39 is set forth in part 6 on pages 6-14 of the Office Action. Specifically, the rejection asserts that the claims are rendered obvious by the GSM/GPRS network shown in Figs. 1 and 2 of U.S. Patent No. 6,463,275 to Deakin (this network hereinafter referred to simply as "Deakin") in view of U.S. Patent No. 6,496,690 to Cobo. Applicants respectfully traverse the obviousness rejection on the grounds that it fails to establish a prima facie case that the applied references teach a network element having each and every one of the combination of features recited in the rejected claims.

Deakin is directed to a method of billing in a GSM/GPRS network that facilitates various types of billing, such as hot billing (real-time billing) and pre-paid billing, in addition to normal billing. Deakin proposes that a subscriber or subscription specific Billing Class Identifier (BCI) be implemented as a new parameter in the Home Location Register (HLR) and used by a charging gateway to direct billing information to one of several different billing systems (see, for example, Fig. 2 and col. 2, lines 27-43, and col. 3, lines 24-37).

Same User Equipment Establishes First and Second Network Connections

By this Amendment, Applicants have amended claims 38 and 39 to recite that the same user equipment establishes both connections recited in the claims. This feature was added to independent claims 1 and 24 in the Amendment filed on March 8, 2006, and claims 1 and 24 were allowed. In Deakin, the same user equipment does not establish two connections as recited in amended claims 38 and 39. The rejection itself refers to a "near end TE" and a "far end TE" as two different terminal equipments.

Application Layer Network

Even though Deakin may have two connections, it does not have one connection in a transport layer network and another connection in an application layer network. The previous Office Action dated September 8, 2005 asserted that the packet data network (PDN) was an application layer network as recited in the claims. Having been refuted in the Response filed on March 8, 2006, the current Office Action now asserts that the "combined system of near end TE, MSC/VLR, HLR, and far end TE" in Deakin is an application layer network. This also is incorrect.

The Response to Arguments on pages 15-16 argues that U.S. Patent No. 6,608,832 to Forslow establishes that there is necessarily an application layer network in a GPRS network, and concludes (wrongly) that because Deakin is a GSM/GPRS network, Deakin must necessarily have an application layer. This is quite incorrect. While Forslow does show a network that has both GPRS services, as well as IP communications, and thus an IP layer and application layer in addition to the transport layer, this does not mean that every GPRS network must necessarily have an IP layer in addition to the transport layer. While it may be argued that GPRS network of Deakin could be modified to include the features of Forslow, that of course is not the rejection at hand which is based solely on Deakin and Cobo.

Incidentally, it should be noted that the first reference source for consideration of the meaning of claim terms is the original specification and drawings of this application, which describes the application layer network as part of the architecture of an IP-based telephony network (at for example, page 12, line 5, to page 14, line 5, of the specification).1

Create Charging Identification

The network element of claim 38 is configured to create "a charging identification". The rejection asserts that the Billing Class Identifier (BCI) in Deakin is such a charging identification and is generated at the NEs when the connection is requested/initiated for billing/charging. However, the description at col. 4, lines 14-50, of the patent states that the BCI is stored in the HLR and is just one parameter in the subscription data. There is simply no indication that the GGSN or SGSN in deakin generates the BCI. Indeed, it is the Call Detail Records (CDRs) rather than the BCI that are generated by the GGSN or the SGSN (see col. 1, lines 58-63, and col. 3, lines 24-33, of the patent).

The response to applicants' arguments at the bottom of page 16 states that "by viewing FIG. 2, one can clearly see that NE1 and NE2 (i.e. GGSN and SGSN) generate BCI" (emphasis in original). However, this is not the case. Fig. 2 merely shows that "CDR's with BCI" are sent from NE2 to the charging gateway. This does not indicate the NE2 generated the BCI. To the contrary, Figs. 2 and 7 show that "subscriber data with BCI" is sent from HLR to NE1 and NE2, and this indicates that the BCI is already present in the subscription data before it is sent to NE1 and NE2. It follows therefrom that the BCI is not generated in NE1 and NE2. The response to applicants' arguments also cites col. 3, lines 34-36, of Deakin as follows:

> **"The network element NE2 passes call detail records (CDRs) with billing class identifiers (BCI) to a charging gateway**, which directs CDRs having appropriate billing class identifiers (in this example with BCIs of 1, 2 and 3) to respective billing systems (shown as A, B and C)" (emphasis in Office Action)

This citation supports applicants' arguments. It states that the network element NE2 "passes" the BCI to a charging gateway. It does not state that network element NE2 creates the BCI.

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1 The response to applicants' arguments also asserts that it would be impossible to transmit a call according to the GPRS standards without an application layer connection. This is also incorrect. (The response

Sending Charging Identification

Claim 38 further recites that the network element is configured to "send said charging identification from said network element so as to be used by a further network element in the other one of the application layer network or the transport layer network..." Claim 39 conversely recites that the network element is configured to "receive said charging identification from a further network element operable in the other one of the application layer network of the transport layer network..."

The rejection acknowledges that Deakin does not explicitly disclose these features, but asserts that they are taught by the Cobo patent. Specifically, the rejection asserts that it would have been obvious to send a charging ID to a GGSN node in the system of Deakin "so that it would provide a standardized method of providing a near real time account balance for subscriber's account and stopping the service when the balance reaches to zero; see Cobo col. 2, lines 5-14, 15-56; see col. 3, lines 34-39." When the applied references are considered as a whole, they do not suggest selectively modifying Deakin to include a small part of Cobo as proposed in the rejection.

The Cobo patent identifies a disadvantage that "there is no known method of providing prepaid subscriber service in a packet-switched network" and suggests it would be advantageous to have a standardized system and method of providing prepaid subscriber service in both circuit-switched and packet-switched radio telecommunications networks. (see col. 2, lines 6-12) Therefore, the teaching of the Cobo patent is applicable to the GPRS system in Deakin **if and only if** Deakin does not include a method of providing prepaid susbscriber service. However, Deakin does include a method of providing a prepaid subscriber service (see Figs. 4, 5 and 7; col. 2, lines 45-52; and col. 3, line 51, to col. 4, line 54). Indeed, the Deakin patent itself teaches the advantage of providing pre-paid billing (see col. 1, lines 12-23) and col. 2, lines 57-67).

Thus, the Cobo and Deakin patent both identify the same disadvantage in the same prior art and both suggest a solution to it. The Deakin patent was filed on January 31, 2000 and was not issued (or otherwise made public) until October 8, 2002. The Cobo patent was filed on May 7, 1999 and was not issued (or otherwise made public) until December 17, 2002. In essence, each patent identified the same disadvantage in the same prior art and each patent proposed its own unique solution to that problem. One of ordinary skill in the art

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also mentions page 5, lines 1-29, which is confusing since Deakin doesn't have 29 lines in Col. 5.)

being aware of the two patents would adopt the whole of the solution proposed in one or the other of the patent, but to say (as the rejection does) that the Cobo patent teaches an improvement to the Deakin patent is incorrect. It thus would not be obvious to selectively modify the solution set forth in Deakin to include the small portion of the solution set forth in the Cobo patent in the manner evidently proposed in the rejection.

Secondly, the Create PDP Context Request 83 in the Cobo patent is sent from the SGSN to the GGSN. The SGSN and GGSN in the Cobo patent appear to both be in the transport layer network. The rejection thus does not establish the Cobo patent sends a charging identifier from an element in one network to an element in the other network.

Coordinating Charging Information

Claim 38 recites that the charging identification is sent "to enable charging information for the elements to be coordinated." Claim 39 similarly recites that the charging identification is received "to enable charging information for the elements to be coordinated."

In Deakin, the Billing Class Identifier is used to identify the billing class and to forward CDR's to the correct one of multiple billing systems. The network element NE2 passes CDRs with BCI to a charging gateway, which directs CDRs based on the BCI to the respective billing system. The charging gateway thus uses the BCI to determine whether the billing information is sent to billing system A, B or C. The BCI is not used to coordinate charging information between a transport layer network and an application layer network.

The Office Action, on page 17, responds that "records usage is forwarded to charging gateway function (see Fig. 1) or a combined system of billing systems and charging gateway (see Fig. 2), the combined charging and billing systems coordinates/associates the billing/charging information by using BCI included in CDR for each NE; see col. 3, lines 30-64; see col. 4, lines 14-55)." The billing method in Deakin occurs entirely within the GSM/GPRS transport layer network.

Anticipation Rejection

The grounds for the anticipation rejection of claims 38 and 39 is set forth in part 4 on pages 3-6 of the Office Action. Specifically, the rejection asserts that the claims are rendered obvious by the GSM/GPRS network shown and described in PCT Patent Document No. WO 97/26739 to Kari et al (this network hereinafter referred to simply as "Kari"). Applicants

respectfully traverse the anticipation rejection on the grounds that it fails to establish a prima facie case that the Kari includes a network element having each and every one of the combination of features recited in the rejected claims.

Kari is directed to a method of billing what it refers to as "new" GPRS service in a GSM network. Unlike the Deakin and Cobo patents that are concerned with how to implement pre-paid billing in a GSM/GPRS, the Kari patent is earlier in time and is concerned with accomplishing any type of billing for packet radio networks, such as GPRS.

Application Layer Network

Therefore, the comments made above with respect to the absence of an application layer network are also applicable to the Kari patent. There is not an application layer network in the GPRS network of Kari. The rejection concludes (wrongly) that Kari has an application layer. While it may be argued that GPRS network of Kari could be modified to include the features of Forslow and thus an application layer, that of course is not the anticipation rejection at hand which is based solely on Kari. Again, it is noted that the first reference source for consideration of the meaning of claim terms is the original specification and drawings of this application, which describes the transport layer network and which describes the application layer network as part of the architecture of an IP-based telephony network (at for example, page 12, line 5, to page 14, line 5, of the specification). There is no IP-based telephony network in Kari. The billing done in Kari occurs entirely within the transport layer network.

Charging Identification

The rejection reads the IMSI identifier of the mobile station (MS) in Kari on the charging identification recited in claims 38 and 39. However, the IMSI is merely a known equipment identifier and is not a charging identification. The IMSI identifier is an attribute of the subscriber's equipment and is used merely to identify the subscriber's equipment. It is typically used for purposes other than charging, such as identifying the subscriber as being authorized to access the GSM/GPRS network.

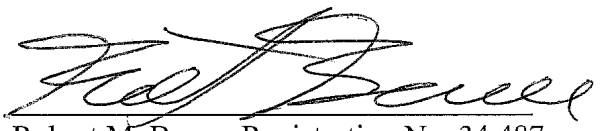
Also, it is clear that the IMSI identifier is not created by any of the network elements as recited in claim 38. It is permanently linked to the subscriber's equipment and is fixed by the subscriber's equipment.

Furthermore, the IMSI identifier is not used to coordinate charging information between an application layer network and a transport layer network. Similar to Deakin, the charging information that is created and passed to the BGGSN indicates the service type and is used to identify the appropriate billing by the billing center. The BGGSN does not perform any coordination of charging information for different network elements in Kari, much less one network element in an application layer network and another network element in the transport layer network.

Conclusion

Applicants respectfully traverse the rejections of claims 38 and 39 for at least the reasons given above and respectfully request a Notice of Allowance. Please charge any fees due in connection with the filing of this Amendment, to Deposit Account No. 02-4270 (Dkt. No. NOKIA.30US) and please credit any overpayment or excess fees to such deposit account.

Respectfully submitted,



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